

**Mental Health, Developmental Disabilities and
Substance Abuse Related Admissions in Community
Hospital Emergency Departments, Quarterly Report**

**Quarter 2
State Fiscal Year 2008-09**

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The Mental Health, Developmental Disabilities, and Substance Abuse Related Admissions in Community Emergency Departments, Quarterly Report, Qtr 2, SFY 2008-09

Report Summary:

The report responds to General Statute 112C-147.1.1 Section 10.49(r) and reports on patterns of admissions of individuals with mental health, substance abuse and developmental disability diagnoses seen in community hospital emergency departments.

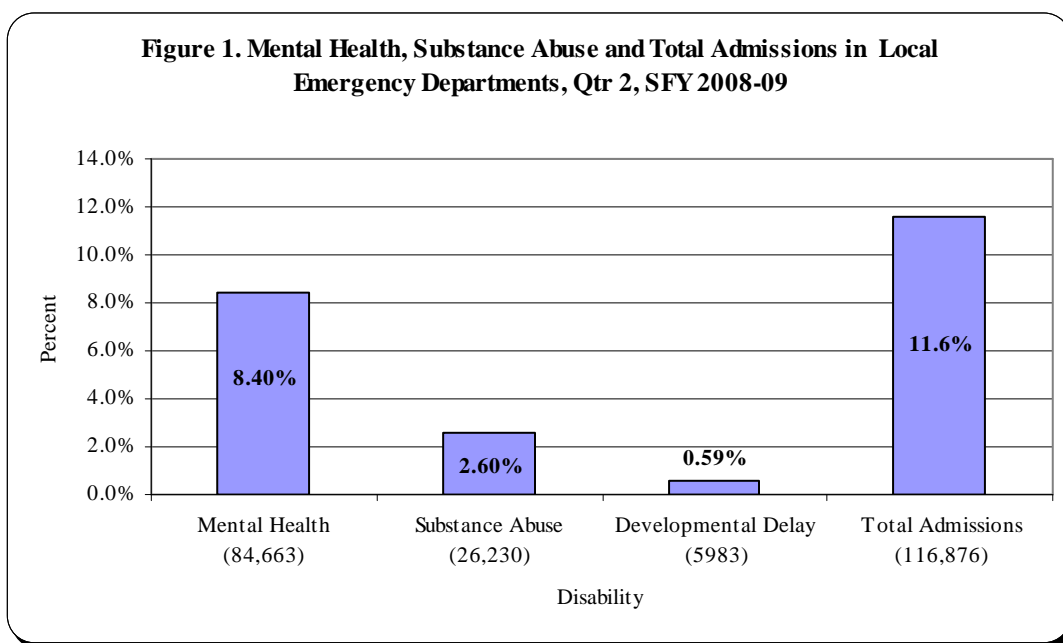
- There are two distinct changes to this report compared to previous versions
 - The ICD-9 codes used to categorize individuals with developmental disabilities have been expanded.
 - Information on individuals with a ***primary diagnosis*** of mental health, substance abuse and developmental disability has been presented in the report.
- During the second quarter of the state fiscal year 2008-09, 84,663 individuals with mental health diagnoses, 26,230 individuals with a substance abuse diagnoses and 5983 individuals with developmental disability diagnoses were seen in a community hospital emergency department. While these individuals had a relevant ICD-9 code, they were not necessarily seen in the emergency department for a behavioral health/developmental disability issue. These individuals represented 11.6% of the patients seen in emergency departments during the quarter.
- When only those individuals with a 'primary' behavioral health or developmental disability diagnosis are included, there were 18,538 individuals with mental health diagnoses, 6,266 individuals with substance abuse diagnoses and 616 individuals with developmental disabilities diagnoses seen in local community hospital emergency department during this time. These individuals represented only 2.5 % of all emergency department admissions.
- There were significantly more adults compared to adolescents and children with mental health (78,646) and substance abuse (25,645) diagnoses seeking care. However, the numbers of children and adolescents were not negligible. A total of 6,017 children with mental health diagnosis and 585 children with substance abuse diagnosis were seen in local community hospital emergency departments. 2,854 adults and 3,129 children with developmental disability diagnoses were seen in emergency departments during the second quarter.
- There were higher numbers of females (52,969) compared to males (31,694) with mental health diagnosis seeking care in emergency departments, whereas the proportion of men (17,312) admitted with substance abuse diagnosis were almost double to that of women (8,918). Within the developmental disabilities category more males (3,461) were seen compared to females (2,522).
- The statewide rate of persons with mental health diagnosis per 10,000 persons in the population was 93.0 persons for the first quarter of fiscal year 2008-09; the statewide rate for persons with substance abuse diagnosis was 28.7 per 10,000 persons; the developmental disability rate was 6.6 per 10,000 persons.

- The rate of mental health and substance abuse admissions varied widely among the 24 LME catchment areas. Western Highlands LME reported the highest rate for emergency department admissions for individuals with a mental health diagnosis (168.4 per 10,000) while Southeastern Regional LME reported the highest rate (46.2 per 10,000) of admissions with a substance abuse diagnosis.
- Guilford Center for Behavioral Health and Developmental Disabilities continues to have the lowest rate of admissions (63 per 10,000 population) for individuals with a mental health diagnosis and Wake County Human Services (23.4 per 10,000 population) had the lowest rates for admissions with a substance abuse diagnosis for the quarter.
- There were 5983 admissions with a developmental disability diagnosis, a five fold increase from the previous quarter. This is attributed entirely to the expansion of the ICD codes used to categorize developmental disabilities.
- County level data aggregates the admissions for all three disabilities - The rate of emergency department admissions by county ranged from 28.0 per 10,000 in Lenoir County to 318.7 per 10,000 in McDowell County.
- Disposition information was available on 110,923 of the 116,876 individuals with a behavioral health or developmental disability diagnosis. Disposition information can often be incomplete or misclassified. A majority of individuals from all three disability categories were either admitted to a hospital or discharged after treatment from the facility.

The Mental Health, Developmental Disabilities, and Substance Abuse Related Admissions in Community Hospital Emergency Departments Report provides information on the emergency department admissions for individuals with mental health, substance abuse and developmental disability diagnoses. The document is in response to the General Statute 112C-147.1.1 Section 10.49(r). This report, the sixth, in the series, presents information for the second quarter of fiscal year 2008-09.

The Emergency Department Admissions information gathered through the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is received by the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMH/DD/SAS) through a data sharing agreement with the North Carolina Division of Public Health. The data are provided to the DMH/DD/SAS as an aggregate file, providing the total number of admissions by disability status, age group and gender by LME and total admissions by county. The individuals that are represented in the report are those who had a mental health, substance abuse or developmental disability ICD-9¹ code indicating their diagnosis. Detailed explanation of the data source is available in Appendix B.

2. Emergency Department Admissions



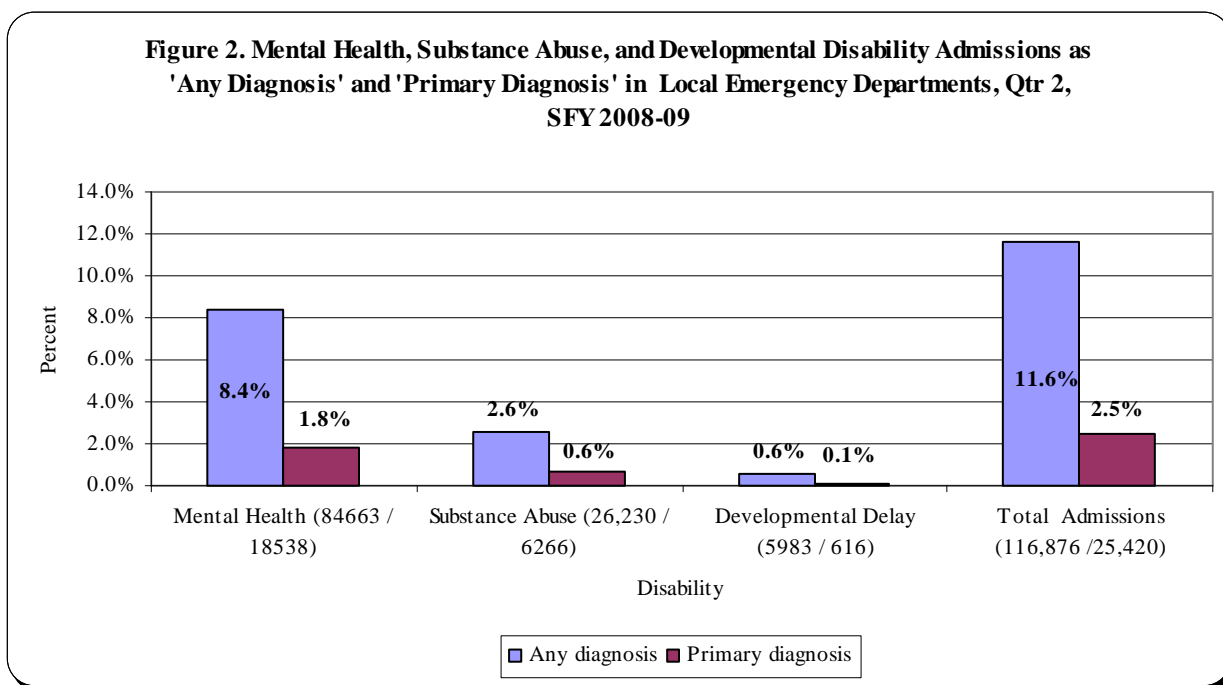
Source: NC DETECT, Qtr 2, SFY 2008-09

The data presented above (Figure 1) show the total proportion of individuals who were admitted to a community hospital emergency department with mental health, substance abuse or developmental disability as any of the listed diagnosis. The percentage is calculated as a proportion of the total admissions for all causes to emergency departments (1,009,484) during the second quarter of SFY 08-09.

¹ The **International Statistical Classification of Diseases and Related Health Problems** (most commonly known by the abbreviation **ICD**) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease. Every health condition can be assigned to a unique category and given a code, up to six characters long. Such categories can include a set of similar diseases.

The total number of admissions for individuals with a mental health diagnosis during the second quarter of SFY 2008-09 was 88,663. During the same time frame, 26,230 individuals with a substance abuse diagnosis were seen in emergency departments. In this report the ICD-9 codes used to categorize developmental disabilities individuals was expanded, documenting a large increase in the number of individuals who presented to the emergency department during this time frame with a developmental disability diagnosis compared to the previous report (5983 vs 216)². The pattern of emergency department admissions for the quarter was consistent with the pattern displayed over the four quarters of the previous fiscal year. 8.4% and 2.6% of all emergency department admissions for the fiscal year were individuals with mental health and substance abuse diagnosis. In comparison, the proportion of individuals with developmental disability diagnosis was 0.6 %. The graph also shows the total admissions for individuals with any of the three diagnoses for the quarter to be at 11.6%.

Figure 2, below presents a comparison of individuals who had mental health, substance abuse or developmental disability listed as the primary diagnosis for the emergency department visit with those who had these diagnosis as any of the listed diagnosis. The graph demonstrates that the percentage of individuals who had a primary behavioral health or developmental disability diagnosis represented only a small percentage of the admissions that had the same ICD codes among ‘any listed’ diagnoses.

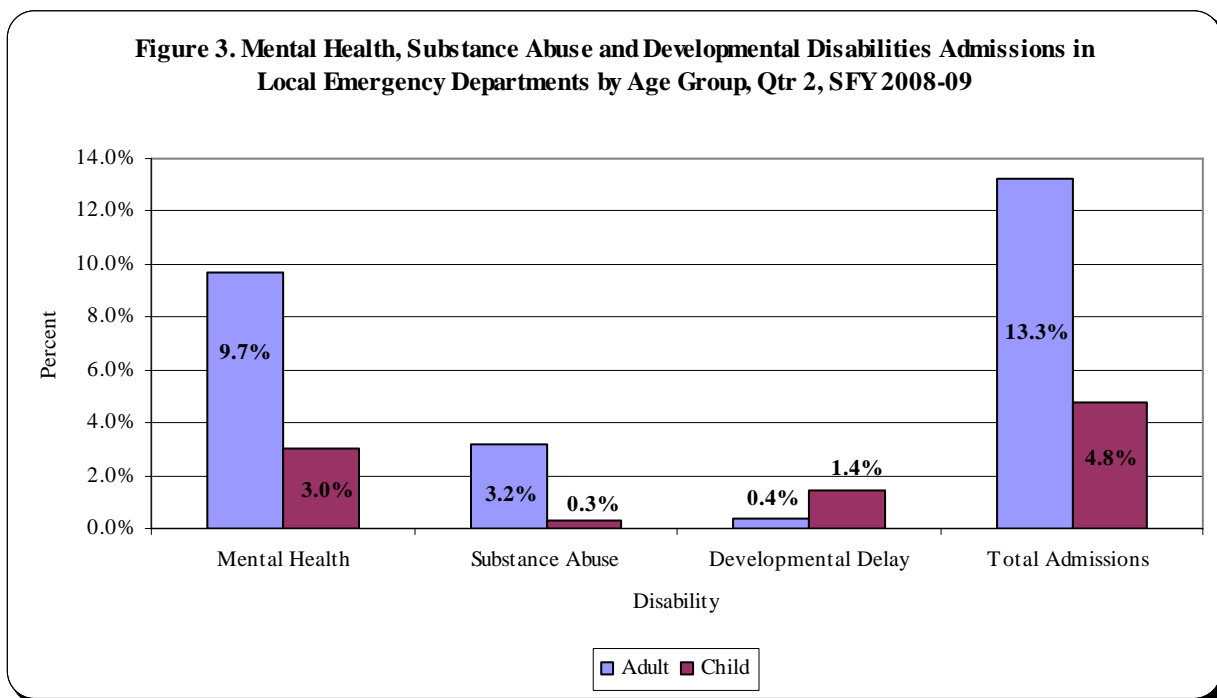


Source: NC DETECT, Qtr 2, SFY 2008-09

All tables and graphs presented in this report in the following pages include all individuals who had a mental health, substance abuse or developmental disability diagnoses, both ‘primary’ as well as ‘any listed’.

² The ICD-9 codes included in the analysis of data for this report are presented in Appendix C.

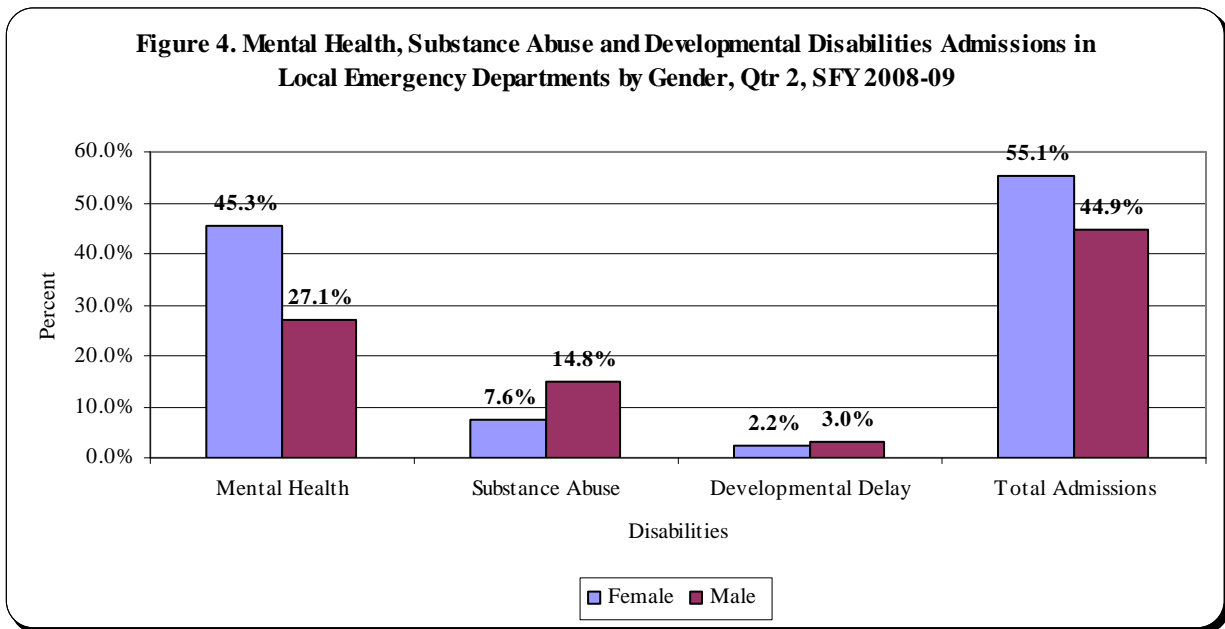
Figure 3, shows the percentage of admissions, where mental health, substance abuse and developmental disability were among any of the listed diagnoses, within local emergency departments disaggregated by age group and disability status. The graph shows the proportion of mental health and substance abuse admissions among adults and children as a function of emergency admissions for the two age categories.



Source: NC DETECT, Qtr 2, SFY 2008-09 Note: Percentages are calculated of total adult admissions and total child admissions separately and not as a proportion of all admissions

A very small percentage of admissions were for children with substance abuse diagnoses (0.3%), totaling 585 admissions. There were 78,646 admissions for adults with a mental health diagnosis during the second quarter. A comparatively smaller proportion, 3.0 % or 6017 child admissions with a mental health diagnosis were seen in emergency departments during the same time frame. 1.4 % of all child admissions and 0.4% of all adult emergency department admissions were individuals with developmental disability diagnosis.

Figure 4 shows the distribution of males and females who had a mental health and substance abuse diagnosis seeking care through local emergency departments. The percentage is calculated as a proportion of all admissions that had a behavioral health or developmental disability diagnosis. There were a higher number of females who had a mental health diagnosis (52,969) compared to males (31,694) seeking care f, whereas the proportion of men (17,312) admitted with a substance abuse diagnosis were almost double that of women (8917). There was also higher number of male (3461) developmental disability admissions compared to females (2522).



Source: NC DETECT, Qtr 2, SFY 2008-09; Note: Percentages are calculated as a proportion of all behavioral health and developmental disability admissions

Table 1, shown below, presents the counts and rates of admission in local emergency departments for individuals with mental health, substance abuse or developmental disabilities diagnosis by LME during the second quarter of SFY 2008-09. Rates allow comparison of admissions across Local Management Entities (LMEs), which provide services to counties with varied population sizes and composition. The statewide rate of admissions per 10,000 population for individuals with mental health diagnosis was 93.0 persons for the second quarter of fiscal year 2008-09 and the statewide rate for individuals substance abuse diagnosis was 28.7 per 10,000 population.

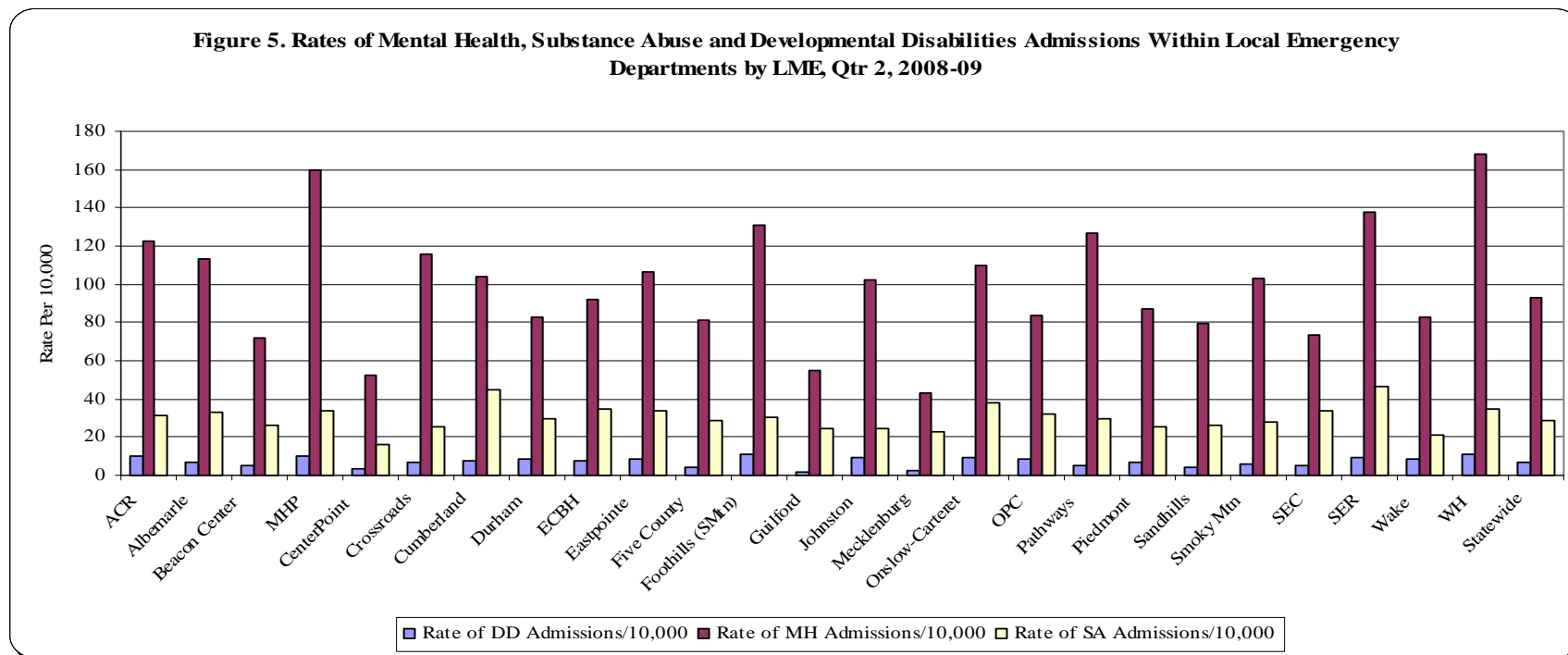
Consistent with data from the past quarter, Western Highlands Local Management Entity had one of the highest rates of admission (168.4 per 10,000) for individuals with mental health diagnosis while Southeastern Regional (SER) had the highest rate (46.2) of admissions with substance abuse diagnosis for the quarter. Guilford Center for Behavioral Health and Developmental Disabilities continues to have the lowest rate (55.1 per 10,000 population) admissions with mental health diagnosis and CenterPoint Local Management Entity (16.3) had the lowest rate of admissions for individuals with substance abuse diagnosis during the quarter. The rate for admissions with developmental disability diagnosis ranged from 2.1 per 10,000 to 11.3 per 10,000, with the statewide rate at 6.6 per 10,000 population.

Table 1. Admissions in Local Emergency Departments by Local Management Entity, Qtr 2, 2008-09						
LME	Developmental Disability	Rate of DD Admissions/10,000	Mental Health	Rate of MH Admissions/10,000	Substance Abuse	Rate of SA Admissions/10,000
Alamance-Caswell-Rockingham	251	9.8	3146	122.5	796	31.0
Albemarle	124	6.7	2087	112.9	605	32.7
Beacon Center	120	4.9	1759	71.9	638	26.1
Mental Health Partners	238	9.8	3870	159.4	816	33.6
CenterPoint	156	3.7	2220	52.2	691	16.3
Crossroads	169	6.4	3028	115.5	657	25.1
Cumberland	246	8.0	3212	104.2	1384	44.9
Durham	203	8.1	2083	82.8	744	29.6
East Carolina Behavioral Health	304	7.7	3610	91.8	1373	34.9
Eastpointe	236	8.1	3101	106.3	981	33.6
Five County	106	4.6	1880	81.4	670	29.0
Foothills (Smoky Mountain)**	170	10.6	2107	131.0	489	30.4
Guilford	94	2.1	2518	55.1	1128	24.7
Johnston	148	9.4	1602	102.1	383	24.4
Mecklenburg	250	2.9	3673	42.8	1941	22.6
Onslow-Carteret	221	9.7	2512	110.2	866	38.0
Orange-Person-Chatham	181	8.2	1860	83.8	713	32.1
Pathways	201	5.4	4708	127.2	1087	29.4
Piedmont	453	6.5	6059	86.8	1796	25.7
Sandhills Center	213	4.0	4227	79.8	1368	25.8
Smoky Mountain	200	5.6	3665	103.4	979	27.6
Southeastern Center	165	4.9	2487	73.3	1151	33.9
Southeastern Regional	227	8.9	3527	137.9	1182	46.2
Wake	702	8.5	6781	82.5	1772	21.5
Western Highlands	563	11.3	8369	168.4	1712	34.4
Statewide	5941	6.6	84091	93.0	25922	28.7

Source: NC DETECT, Qtr 2, SFY 2008-09

Note. LME level totals may differ from statewide estimates due to incompleteness of county level information. **This is the last quarter for which Foothills data is listed separate from Smoky Mountain.

Figure 5 is a graphical representation of the information presented in Table 1, the rate of admissions with mental health, substance abuse and developmental disability diagnosis in emergency departments by Local Management Entity for the second quarter of fiscal year 2008-09.



Source: NC DETECT, Qtr 2, SFY 2008-09

Abbreviations ACR- Alamance-Caswell-Rockingham; MHP-Mental Health Partners, ECBH- East Carolina Behavioral Health, OPC-Orange -Person -Chatham, SEC- Southeastern Center, SER-Southeastern Regional; WH- Western Highlands

Table 2 presents the counts and rates of admissions for individuals with mental health, substance abuse and developmental disability diagnosis disaggregated by age group (adult and child) for each of the 24 Local Management Entities. The table also gives the counts for emergency department admissions for all causes by LME catchment area. The total number of emergency department admissions by LME came to 1,003,686³ during the second quarter of the year.

³ LME level admissions vary from the state level admissions due to discrepancies regarding information of county of residence. State level total ED admissions were 1,009,484 for the second quarter.

Table 2. Emergency Department Admissions by Age Group and Local Management Entity, Qtr 2, SFY 2008-09										
Local Management Entity	Developmental Disability			Mental Health			Substance Abuse			ED admissions for all causes
	Adult	Child	Total	Adult	Child	Total	Adult	Child	Total	
ACR	110	141	251	2,920	226	3,146	796	0	796	32,182
Albemarle	77	47	124	1,933	154	2,087	575	30	605	18,950
Beacon Center	59	61	120	1,627	132	1,759	624	14	638	32,589
Mental Health Partners	107	131	238	3,613	257	3,870	816	0	816	31,306
CenterPoint	69	87	156	1,998	222	2,220	672	19	691	44,875
Crossroads	72	97	169	2,817	211	3,028	643	14	657	34,641
Cumberland	101	145	246	2,870	342	3,212	1,356	28	1,384	31,764
Durham	114	89	203	1,935	148	2,083	727	17	744	26,833
ECBH	141	163	304	3,251	359	3,610	1,342	31	1,373	45,904
Eastpointe	119	117	236	2,852	249	3,101	950	31	981	37,122
Five County	66	40	106	1,766	114	1,880	654	16	670	31,020
**Foothills	82	88	170	1,961	146	2,107	475	14	489	21,511
Guilford	52	42	94	2,413	105	2,518	1,114	14	1,128	48,727
Johnston	76	72	148	1,459	143	1,602	383	0	383	18,734
Mecklenburg	199	51	250	3,565	108	3,673	1,941	0	1,941	78,640
Onslow-Carteret	115	106	221	2,293	219	2,512	854	12	866	21,231
OPC	90	91	181	1,715	145	1,860	690	23	713	17,274
Pathways	90	111	201	4,314	394	4,708	1,061	26	1,087	52,764
Piedmont	207	246	453	5,566	493	6,059	1,746	50	1,796	75,837
Sandhills Center	106	107	213	3,952	275	4,227	1,334	34	1,368	65,797
Smoky Mountain	107	93	200	3,467	198	3,665	979	0	979	39,070
SEC	98	67	165	2,336	151	2,487	1,140	11	1,151	35,302
SER	100	127	227	3,230	297	3,527	1,168	14	1,182	41,090
Wake	367	335	702	6,278	503	6,781	1,754	18	1,772	68,878
WH	382	181	563	7,971	398	8,369	1,675	37	1,712	51,645
Statewide	3,106	2,835	5,941	78,102	5,989	84,091	25,469	453	25,922	1,003,686

Source: NC DETECT Qtr 2 SFY 2008-09. Note. LME level totals may differ from statewide estimates due to incompleteness of county level information. **This is the last quarter for which Foothills data is listed separate from Smoky Mountain.

Table 3 gives the rate of admissions for individuals with for all of the three disability diagnosis, mental health, substance abuse and developmental disability, by the county of residence of the consumer. The rate of emergency department admissions by county ranged from 28.0 per 10,000 in Lenoir County to 318.7 per 10,000 in McDowell County.

Table 3. Mental Health, Substance Abuse and Developmental Disability Admissions in Local Emergency Departments by County, Qtr 2, SFY 2008-09					
County	Count(n)	Rate Of Behavioral Health Admissions & DD/10,000	County	Count (n)	Rate of Behavioral Health Admissions & DD/10,000
Alamance	2107	145.2	Jones	170	163.9
Alexander	501	135.3	Lee	527	91.7
Alleghany	294	263.1	Lenoir	161	28.0
Anson	479	190.4	Lincoln	1245	167.3
Ashe	76	28.9	Macon	228	51.3
Avery	142	77.3	Madison	366	106.9
Beaufort	602	130.1	Martin	577	279.5
Bertie	252	127.0	McDowell	756	318.7
Bladen	345	106.1	Mecklenburg	5374	60.2
Brunswick	873	83.9	Mitchell	191	119.8
Buncombe	5823	253.8	Montgomery	173	62.3
Burke	1673	189.1	Moore	756	88.4
Cabarrus	3028	177.6	Nash	671	71.5
Caldwell	1220	153.0	New Hanover	2128	109.4
Camden	100	101.6	Northampton	245	115.5
Carteret	1327	208.0	Onslow	1825	106.5
Caswell	151	64.3	Orange	1359	105.3
Catawba	2714	174.6	Pamlico	163	125.8
Chatham	414	68.4	Pasquotank	708	169.4
Cherokee	360	130.8	Pender	348	66.7
Chowan	202	136.8	Perquimans	214	164.0
Clay	118	111.6	Person	588	155.0
Cleveland	2186	225.1	Pitt	1195	77.0
Columbus	719	132.4	Polk	184	96.6
Craven	1892	194.4	Randolph	1518	108.0
Cumberland	4135	131.5	Richmond	546	116.5
Currituck	184	75.5	Robeson	2715	208.2
Dare	427	123.8	Rockingham	1485	162.0
Davidson	1183	75.0	Rowan	1447	105.2

County	Count(n)	Rate of Behavioral Health Admissions & DD/10,000	County	Count (n)	Rate of Behavioral Health Admissions & DD/10,000
Davie	202	48.9	Rutherford	1229	195.4
Duplin	543	101.0	Sampson	875	134.2
Durham	2700	104.1	Scotland	678	183.6
Edgecombe	442	86.2	Stanly	552	93.0
Forsyth	2269	65.9	Stokes	327	70.5
Franklin	644	111.7	Surry	1493	203.0
Gaston	2113	103.5	Swain	203	144.0
Gates	40	33.0	Transylvania	330	106.1
Graham	96	117.4	Tyrrell	26	60.1
Granville	522	92.5	Union	1257	65.3
Greene	113	53.3	Vance	336	77.0
Guilford	3359	71.6	Wake	8370	96.5
Halifax	738	134.2	Warren	136	68.4
Harnett	960	88.2	Washington	38	28.9
Haywood	1298	226.4	Watauga	371	82.2
Henderson	1177	112.9	Wayne	2303	199.1
Hertford	114	48.0	Wilkes	908	134.8
Hoke	316	71.0	Wilson	1070	136.0
Hyde	53	98.3	Yadkin	234	61.3
Iredell	1812	116.8	Yancey	240	128.0
Jackson	377	101.1	Statewide	104134	112.7
Johnston	1880	115.6			

Source: NC DETECT, Qtr 2, SFY 08-09

Table 4 shows the disposition of individuals with mental health, substance abuse or developmental disability diagnosis at the state level. It may be noted that often disposition status may not be appropriately captured or may be incomplete in the emergency department data. Disposition information is only available on 110,923 of the 116, 876 individuals with a mental health, substance abuse or developmental disability diagnosis seen in a emergency department over quarter 2 of SFY 2008-09.

Table 4. Disposition of Mental Health, Substance Abuse and Developmental Disabilities Individuals Seen within a Local Emergency Department, Qtr 2, 2008-09												
Disability	Disposition											
	Admitted	Admitted - ICU	Admitted - Psych	Died	Discharged	Against Medical Advice (AMA)	Without Medical Advice (WMA)	Observation	Other	Transferred	Unknown	Total
Developmental Disability	1,583	18	66	0	3,762	24	28	23	27	210	0	5,741
Mental Health	23,389	221	1,749	108	47,119	1,154	478	618	426	4,858	224	80,344
Substance Abuse	8,118	128	759	24	13,229	399	181	212	219	1,529	40	24,838
Total by disposition	33,090	367	2,574	132	64,110	1,577	687	853	672	6,597	264	110,923

Source: NC DETECT, Qtr 2, SFY 08-09; Note- Disposition 'Admitted' includes hospital floor, isolation bed, CCU, operating room or diagnostic unit; 'Transferred' includes- transfer to prison, jail, general hospital, another type of institution or to home care ; 'Other' category is not clearly defined.

APPENDICES

Appendix A. List of Hospitals Contributing Data to NC DETECT

As of October 16, 2008, there are 110 of 112 (98%) hospitals submitting production-level data on a daily basis to NC DETECT.

County	Town	Hospital
Alamance	Burlington	Alamance
Alexander	Taylorsville	Frye Alexander
Alleghany	Sparta	Alleghany
Anson	Wadesboro	Anson
Ashe	Jefferson	Ashe
Avery	Linville	Charles A. Cannon
Beaufort	Washington	Beaufort
Beaufort	Belhaven	Pungo
Bertie	Windsor	Bertie
Bladen	Elizabethtown	Bladen
Brunswick	Supply	Brunswick
Brunswick	Southport	Dosher
Buncombe	Asheville	Mission
Burke	Morganton	Grace
Burke	Valdese	Valdese
Cabarrus	Concord	Northeast
Caldwell	Lenoir	Caldwell
Carteret	Morehead City	Carteret
Catawba	Hickory	Catawba Valley
Catawba	Hickory	Frye
Chatham	Siler City	Chatham
Cherokee	Murphy	Murphy
Chowan	Edenton	Chowan
Cleveland	Shelby	Cleveland
Cleveland	Kings Mountain	Kings Mountain
Columbus	Whiteville	Columbus
Craven	New Bern	Craven
Cumberland	Fayetteville	Cape Fear Valley
Dare	Nags Head	Outer Banks
Davidson	Lexington	Lexington
Davidson	Thomasville	Thomasville
Davie	Mocksville	Davie
Duplin	Kenansville	Duplin
Durham	Durham	Duke
Durham	Durham	Durham Regional
Edgecombe	Tarboro	Heritage
Forsyth	Winston-Salem	Forsyth
Forsyth	Winston-Salem	NCBH
Franklin	Louisburg	Franklin
Gaston	Gastonia	Gaston
Granville	Oxford	Granville

County	Town	Hospital
Guilford	High Point	High Point
Guilford	Greensboro	Moses Cone
Guilford	Greensboro	Wesley Long
Halifax	Roanoke Rapids	Halifax
Halifax	Scotland Neck	Our Community
Harnett	Dunn	Betsy Johnson
Haywood	Clyde	Haywood
Henderson	Hendersonville	Margaret Pardee
Henderson	Fletcher	Park Ridge
Hertford	Ahoskie	Roanoke Chowan
Iredell	Statesville	Davis
Iredell	Statesville	Iredell
Iredell	Mooreville	Lake Norman
Jackson	Sylva	Harris
Johnston	Smithfield	Johnston
Lee	Sanford	Central Carolina
Lenoir	Kinston	Lenoir
Lincoln	Lincolnton	Lincoln
Macon	Franklin	Angel
Macon	Highlands	Highlands
Martin	Williamston	Martin
McDowell	Marion	McDowell
Mecklenburg	Charlotte	CMC
Mecklenburg	Charlotte	CMC Mercy
Mecklenburg	Charlotte	CMC Pineville
Mecklenburg	Charlotte	CMC Univiversity
Mecklenburg	Charlotte	Presbyterian
Mecklenburg	Huntersville	Presbyterian Huntersville
Mecklenburg	Matthews	Presbyterian Matthews
Mitchell	Spruce Pine	Blue Ridge Regional (Spruce Pine)
Montgomery	Troy	FHS Montgomery
Moore	Pinehurst	FHS Moore
Nash	Rocky Mount	Nash
New Hanover	Wilmington	New Hanover
Onslow	Jacksonville	Onslow
Orange	Chapel Hill	UNC Hospitals
Pasquotank	Elizabeth City	Albemarle
Pender	Burgaw	Pender
Person	Roxboro	Person
Pitt	Greenville	Pitt
Polk	Columbus	St Luke
Randolph	Asheboro	Randolph
Richmond	Rockingham	FHS Richmond
Richmond	Hamlet	Sandhills

County	Town	Hospital
Robeson	Lumberton	Southeastern
Rockingham	Reidsville	Annie Penn
Rockingham	Eden	Morehead
Rowan	Salisbury	Rowan
Rutherford	Rutherfordton	Rutherford
Sampson	Clinton	Sampson
Scotland	Laurinburg	Scotland
Stanly	Albemarle	Stanly
Stokes	Danbury	Stokes Reynolds
Surry	Elkin	Hugh Chatham
Surry	Mt. Airy	Northern Surry
Swain	Bryson City	Swain
Transylvania	Brevard	Transylvania
Union	Monroe	Union
Vance	Henderson	Maria Parham
Wake	Raleigh	Duke Raleigh
Wake	Raleigh	Rex
Wake	Apex	WakeMed Apex
Wake	Cary	WakeMed Cary
Wake	Raleigh	WakeMed North
Wake	Raleigh	WakeMed Raleigh
Washington	Plymouth	Washington
Watauga	Blowing Rock	Blowing Rock
Watauga	Boone	Watauga
Wayne	Goldsboro	Wayne
Wilkes	North Wilkesboro	Wilkes
Wilson	Wilson	Wilson
Yadkin	Yadkinville	Hoots

Appendix B: Data Source

What is NC DETECT?

The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is the Web-based early event detection and timely public health surveillance system in the North Carolina Public Health Information Network. NC DETECT uses the CDC's CUSUM algorithms from the Early Aberration Reporting System (EARS) to monitor several data sources for suspicious patterns. The reporting system also provides broader public health surveillance reports for emergency department visits related to hurricanes, injuries, asthma, vaccine-preventable diseases, occupational health and others.

Who develops and manages NC DETECT?

Staff at the UNC Department of Emergency Medicine (UNC DEM), under contract to the North Carolina Division of Public Health (NC DPH) develop and manage NC DETECT. UNC DEM collaborates with NC DPH on all aspects of NC DETECT development.

How is NC DETECT related to NCHESS?

Data from the North Carolina Hospital Emergency Surveillance System (NCHESS) are loaded into NC DETECT (which was formerly known as the North Carolina Bioterrorism and Emerging Infection Prevention System, NC BEIPS). The NC DETECT team at the UNC Department of Emergency Medicine monitors the quality of the NCHESS data and work with hospitals, their vendors and the North Carolina Hospital Association (NCHA) to ensure NC DETECT users have access to the most accurate data possible.

How have North Carolinians benefited from NC DETECT?

With NC DETECT, public health officials at the local, regional and state levels are able to monitor a variety of important public health issues in a secure and timely fashion, including influenza, post-hurricane health issues, injury and violence, and vaccine-preventable disease surveillance. For example, NC DETECT users have monitored illness and injury effects after hurricanes Isabel and Ophelia, analyzed ED use at select hospitals by Katrina evacuees, and uncovered unreported cases of tuberculosis. Before NC DETECT, similar surveillance was either simply not performed, relied on manual, redundant data entry, or had a considerable time lag. A summary of specific [NC DETECT outcomes](#) is also available. Since NC DETECT is designed to uncover suspicious patterns of illness in both human and animal populations, it is a key tool in the early detection of emerging infectious diseases, such as new strains of influenza.

Who pays for NC DETECT?

NC DETECT is funded from federal bioterrorism grants administered through the Centers for Disease Control and Prevention and disbursed by the North Carolina Department of Health and Human Services, Division of Public Health.

For more Information: ncdetect@listserv.med.unc.edu, (919) 843-2361

Appendix C: ICD-9 codes

ICD-9 codes that are used to categorize each of the three disabilities are listed below. The **International Statistical Classification of Diseases and Related Health Problems** (most commonly known by the abbreviation **ICD**) provides codes to classify [diseases](#) and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease.

ICD code grouping	Description of category
Mental Health	
290.00- 290.99	Dementia/Delusional psychosis
293.00-293.99	Organic delirium/delusions
294.00-294.99	Dementia/Organic brain syndrome
295.00-295.99	Schizophrenia
296.00-296.99	Maniac depressive disorder
297.00-297.99	Paranoia
298.00-298.99	Unspecified psychosis
299.00-299.99	Childhood psychosis
300.00-300.99	Neurotic disorders
301.00-301.99	Personality disorder
302.00-302.99	Psychosexual/zoophilia /pedophilia /homosexuality
306.00-306.99	Physiological malfunction from mental disorders
307.00-307.99	Sleeping order/eating disorder
308.00-308.99	Predominant emotional disturbance
309.00-309.99	Brief/prolonged depressive reaction
310.00-312.99	Conduct disorder
313.00-314.99	Emotional disturbance of childhood or adolescence
799.9	Other MH /unknown/unspecified
995.50-995.89	Child/adult abuse/neglect
Substance Use and Abuse	
292.00-292.99	Drug induced psychosis
304.00-304.99	Drug dependence
305.20-305.99	Drug abuse
291.00-291.99	Alcohol-related psychosis
303.00-303.99	Alcohol dependence
305.00-305.03	Alcohol abuse
Developmental Disabilities	
315.00-315.99	Developmental disabilities
V79.0-V79.9	Range of DD early childhood/DD- unspecified
314.01	Hyperkinesias with DD
740-759	Congenital anomalies
317.00	Mild mental retardation
318.00	Moderate mental retardation
318.10	Severe mental retardation
318.20	Profound mental retardation
319.00	Mental retardation, severity unspecified

The DMH/DD/SAS *Mental Health, Developmental Disabilities and Substance Abuse Related Admissions in Community Emergency Departments, Quarterly Report* is published four times a year.

All reports are available on the Division's website:

<http://www.ncdhhs.gov/mhddsas/statspublications/reports/>

Questions and feedback should be directed to:
NC DMH/DD/SAS Quality Management Team

ContactDMHQuality@ncmail.net

Or

(919)-733-0696

